

REMARKS

In the Official Action mailed on **28 November 2007**, the Examiner reviewed claims 1-2, 4-10, and 12-16. Examiner rejected the specification because of informalities. Examiner rejected claims 1-2, 4-10, and 12-16 under 35 U.S.C. § 112. Examiner rejected claims 1-2, 4-10, and 12-16 under 35 U.S.C. § 103(a) based on Beck et al (USPub 2002/0049963, hereinafter “Beck”), Almy et al (USPN 6,609,216, hereinafter “Almy”), and Hall (USPN 5,828,883, hereinafter “Hall”).

Specification

The specification is objected to because of informality. In particular, page 4 contains a hyperlink.

Accordingly, Applicant has amended to specification to remove the hyperlink. No new matter has been added.

Rejections under 35 U.S.C. §112

Claims 1, 2, 4-10, and 12-26 were rejected under 35 U.S.C. §112 second paragraph as being not consistent with the specification.

Accordingly, Applicant has amended claim 1 and 9 to clarify the claim language making the time being subtracted from **the time for executing the code including the instrumented portions of the code**. Note that, the code including the instrumented portions of the code contains two parts: the instrumentation code which is instrumented into portion of the code, and the code to be profiled. Thus, by subtracting the overhead time, which is the time for executing the instrumentation code, we get the execution time for the code to be profiled.

Rejections under 35 U.S.C. §103(a)

Claims 1, 2, 4-10, and 12-26 were rejected as being unpatentable over Beck, in view of Almy, further in view of Hall. Applicant respectfully disagrees because Beck, Almy and Hall do not teach calibrating the execution time of the instrumentation code in isolation by putting multiple copies of instrumentation codes inside each loop.

Beck discloses a method for instrumenting object-oriented software, and Almy discloses using a test case program and a driver to set up a sequence of instructions to be measured (see col. 2, ll. 12-17 of Almy). Examiner avers that it would be obvious to a person of ordinary skill in the art at the time of the invention to combine Beck and Almy to render the claims of the present invention obvious. However, “The mere fact that references can be combined or modified does not render the result combination obvious unless the prior art also suggested the desirability of the combination.” (see MPEP §2143.01.III). Note that, instead of suggesting the combination with Beck which discloses instrumentation, Almy teaches away from using instrumentation code by stating, “*The instrumentation approach requires...a stand alone run...result in large errors...*” (see col. 1, ll. 20-27 of Almy).” Almy system measures the execution time for the test case program including a number of test points (see col. 3, ll. 36-59 of Almy).

In addition, embodiments of the present invention calibrate the execution time of the instrumentation code in isolation by putting **multiple copies of** instrumentation codes inside each loop (see par. [0094] of the instant application). Because additional overhead caused by the operations performed on the “for” loop is ignored, putting multiple copies of the instrumentation codes inside each loop can make this overhead smaller in comparison with the case when only one copy of the instrumentation code is included in the loop. (see par. [0094] of the instant application).

In contrast, Almy uses a test case program including a series of test points, **one BEGIN CLOCK**, and **one END CLOCK** (see col. 3, ll. 37-59 of Almy).

Almy's system runs the test case sequence removing one test point at a time (see col. 3, ll. 37-59 of Almy). Examiner avers that Almy's discloses measuring the overhead time in isolation stating, "*when there is no control instruction test points is the overhead*" (see page 4, 3rd paragraph of the Office Action). However, Almy does not disclose putting multiple copies of instrumentation code in one loop.

Hull, on the other hand, discloses a method for measuring the usage of a focus resource by a target program. Examiner references Hull col. 6, ll. 55-67, and states that the overhead ticks are available for subtraction shows that overhead ticks are measured independently by measuring the calls to the clock, which is the profiling instrumentation code. However, the overhead clock ticks as measured in Hull are not associated with instrumentation code, and the instrumentation code is more than a simple call to the clock (see Fig. 4 of the instant application showing an exemplary instrumentation code).

There is nothing in Beck, Almy and Hull that teaches using a loop repetitively execute the instrumentation code in isolation, wherein more than one copies of the instrumentation code are included in the loop.

Accordingly, Applicant has amended claims 1 and 9 to clarify that the method measures the time required to execute instrumentation code in isolation through a calibration procedure and the calibration procedure involves executing the instrumentation code in a loop for a number of times, wherein multiple copies of the instrumentation codes are included in the loop. These amendments find support in pars. [0009], [0084], and [0094] of the instant application. No new matter has been added.

Hence, Applicant respectfully submits that independent claims 1 and 9 as presently amended are in condition for allowance. Applicant also submits that claims 2 and 4-8, which depend upon claim 1, and claims 10 and 12-16, which depend upon claim 9, are for the same reasons in condition for allowance and for reasons of the unique combinations recited in such claims.

CONCLUSION

It is submitted that the present application is presently in form for allowance. Such action is respectfully requested.

Respectfully submitted,

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